

10/2

Notice of Allowability

Application No.

09/526,957

Examiner

James M. Mitchell

Applicant(s)

SEBESTA ET AL. 84

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/3/2004.
2. ☒ The allowed claim(s) is/are 2-5,9-13,33,34,37,38 and 41.
3. ☒ The drawings filed on 16 March 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Election/Restrictions

Claims were withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) filed March 3, 2004. The election of the species of thick and thin pads on the same surface has been acknowledged. Applicant's argument are persuasive with respect to distinguishing between wirebonds and solder ball connection, but are unpersuasive to the species of a thick and thin pads on the same surface compared to thick and thin pads on different surfaces. Because the species and burden have been established pursuant to M.P.E.P the restriction is deemed proper.

In contacting applicant to indicate the allowability of the elected species, the nonelected claims drawn to the plated through hole have been canceled as indicated below.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jack Friedman on July 22, 2004 to overcome newly discovered art that was indicated by examiner and cited in current PTO-892.

Claims

~~Cancel claims 7, 28-32, 35-36 and 39.~~

In claim 2, Lines 7, 9, 16 after "substrate," delete "and";

in Line 5 after "in a" insert - - first - -;

in Line 8 after "substrate" insert - -, wherein a width in a second direction of the second portion of the first circuit line exceeds a width in the second direction of the first portion of the first circuit line, wherein the second direction is oriented parallel to the surface of the substrate- -; and

in Line 17 after "contact" insert - -, and wherein a width in the second direction of the second portion of the second circuit line exceeds a width in the second direction of the first portion of the second circuit line;

~~an electronic assembly coupled to the first conductive pad; and~~
an electronic carrier coupled to the second conductive pad- -.

In claim 3, Line 16, after " substrate," delete "and" in line 17; and in Line 23 after "substrate," delete "and";

in Line 12 after "in" delete "a" and insert- - the- -;

in Line 13 after "to" delete "a" and inset- - the- -;

in Line 22 after "in" delete "a" and inert- - the- -;

in Line 22 after "to" delete "a" and inert- - the- -;

In Line 24 after "substrate," insert - - wherein the third circuit line physically touches the first circuit line in direct surface-to-surface contact, and wherein the third circuit line physically touches the second circuit line in direct surface-to-surface contact;

an electronic assembly coupled to the first conductive pad; and
an electronic carrier coupled to the second conductive pad- -.

In claim 9, Lines 2 and 4 after "ball" delete "coupled to " and insert - - coupling- -, and in Line 2 after "pad" insert - - to the electronic assembly; and- -;

In Line 4 after "pad" delete "and an electronic carrier coupled to the second solder ball" and insert - - to the electronic carrier- -;

In claim 12, Line 3 after "coating;" delete " an" in Line 4 and insert - - wherein the- -;

in Line 4, after "assembly" insert- - is- - and after "interconnect;" insert- - and- -;

in Line 5, after "pad;" delete "and an" and insert- - wherein the- -;

in Line 6, after "carrier" insert - - is- -.

In claim 34, Line 2 after "interconnect" delete "coupled to" and insert- - coupling- -;

In Line 3 after "coating" delete "; an electronic assembly coupled to the wirebond interconnect;" and insert - - to the electronic assembly; and - -;

In Line 5 after "ball" delete "coupled to" and insert- - coupling";

In Line 5 after "pad" delete "; and electronic carrier coupled to the solder ball" and insert - - to the electronic carrier- -.

Allowable Subject Matter

Claims 2-5,9-13,33,34,37,38 and 41 allowed.

The following is an examiner's statement of reasons for allowance: the prior art does not disclose or make obvious forming a first and second circuit line totally external to an interior of a substrate that are in physical surface to surface contact with each other with the first circuit line having a thickness different than the second circuit line, along with the first and second circuit lines having pad portions that have widths that exceed the remaining portions of the line, wherein a carrier is connected to one pad and an electronic assembly is connected to the other pad. .

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

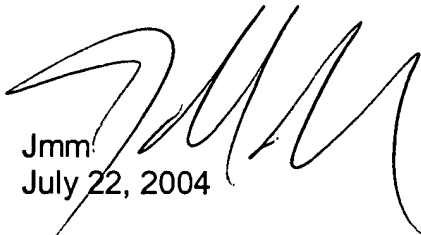
Conclusion

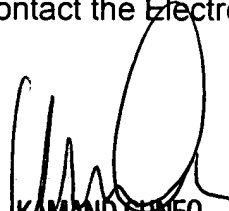
Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Mitchell whose telephone number is (571) 272-1931. The examiner can normally be reached on M-F 10:30-8:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamand Cuneo can be reached on (571) 272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jmm
July 22, 2004


KAMAND CUNEO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800